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ABSTRACT

The verb stem "maka" ("give") in Nahuatl is unusual in its range of options with respect to transitivity. Like all transitive verb stems, it regularly occurs with an object and must do so, but it also appears in an unusually large number of constructions in which it has two objects. These constructions are examined within the framework of cognitive grammar (CG). The report begins with a review of preliminary considerations, including the treatment of verbs, subjects, and objects in CG, transitive and intransitive Nahuatl verb stems, Nahuatl object prefixes, and incorporated noun objects. A section is then devoted to generalizations and observations about double-object constructions. Two subsequent sections discuss non-personal objects producing an intransitive or a transitive stem, respectively. In the case of transitive stems, situations producing both secondary objects and transitivity shifts are considered. Finally, the many meanings of two particular, specialized constructions are discussed. The conclusion provides a schematic representation of some of the classifications of structures investigated. (MSE)

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# THE NAHUATL VERB maka
# A COGNITIVE GRAMMAR ANALYSIS

David Tuggy

1 Introduction
2 Preliminary considerations
  2.1 Verbs, subjects and objects in CG
  2.2 Transitive and intransitive Nahuatl verb stems
  2.3 Nahuatl object prefixes
  2.4 Incorporated noun objects
3 Double-object constructions
4 Non-personal objects producing an intransitive stem
5 Non-personal objects producing a transitive stem
  5.1 Secondary objects
  5.2 Transitive shifts
6 The many meanings of mo-maa; kuā-maa
7 Summary and conclusion

## 1 INTRODUCTION

The verb stem **maka** 'give' in Nahuatl is unusual in its range of options with respect to transitivity.[1] Like all transitive verb stems, it regularly occurs with an object and in fact must do so, but it also appears in an unusually large number of constructions in which it has two objects. I would like to examine these constructions within the framework of Cognitive grammar (CG) (Langacker 1987).

## 2 PRELIMINARY CONSIDERATIONS

### 2.1 Verbs, subjects and objects in CG

Before beginning to examine the Nahuatl data we would do well to clarify how verbs and their subjects and objects are understood in CG.

Verbal concepts designate *processes*, *relations* whose evolution is tracked cognitively through time. As the name implies, relations designate cognitive interconnections which relate other entities. Invariably, one of the entities which are related is singled out as figure

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1 The Nahuatl data correspond to the dialect spoken to the south of Orizaba, Veracruz. Orthographic symbols are used with their usual meanings, with the following provisos: **tl**, **tz**, **ch**, and **ku** are digraphs, representing [ɬ], [ʦ], [č], and [kʷ] respectively. **x** is [š] (English orthographic **sh**). Stress is penultimate unless marked (with an acute accent). Vowel length is elusive but not quite illusive (Burnham and Tuggy 1979); where it is marked it has been heard at least once.

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against the ground provided by the other entities: this salient entity is called the *Trajector* (you can think of it as a kind of "internal subject"). For instance, in **maka**, as in its English translation 'give', the giver is Trajector of the verbal concept. Commonly there are other salient entities, distinct from the Trajector, which are involved in the designated process, these are *landmarks* (or "internal objects" if you like). For **maka** the thing given and the person who receives it are landmarks. Commonly one landmark will stand out above the rest: this is often simply called the Landmark (with a capital "L"); for clarity's sake we will use the term *primary Landmark*. The other landmarks are thus *secondary landmarks*. For **maka** the person receiving what is given is the primary Landmark, and the thing given is secondary. **maka** is diagrammed in Figure 1.[2]

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[2] In Figure 1 and subsequent diagrams the following conventions hold. Trajector and primary Landmark are labelled "Tr" and "Lm" (or "Primary Lm") respectively. Other landmarks are labelled "lm". Dotted lines represent *correspondences* or identity construals. Humans are represented by stick men, except for speaker and hearer, who are represented as S and H respectively. Other *Things* are represented by circles; a schematic relation by two circles joined by a dashed line. *Profiling* (designation) is indicated by boldfacing, secondary salience by lesser boldfacing. No indication is given of the *temporal profile* of verbal notions, since the contrast between processes and atemporal relations is not relevant here. In diagrams of the conception of giving, a double arrow represents causing the change (indicated by the single arrow) of the thing given from one person's sphere of possession to another's. In certain other diagrams (e.g. the diagrams of **mo-** reflexive in Figures 4-5) an arrow is used to represent a process, with the Trajector at the tail and the Landmark at the head of the arrow. Semantic structures are located in a "Semantic Space", and the phonological structures that symbolize them in a "Phonological Space", with the symbolization relation represented by a solid line crossing the boundary between the two spaces. For complex structures the composite structures are represented above the components, with solid lines representing the component-composite relationship. No attempt has been made to represent differences of entrenchment; e.g. the form **ni-mitz-tē-maka** and its component **mitz-tē-maka** (Figure 16) are presumably not established units, as their components **ni-**, **mitz-**, **tē-**, **maka**, and **tē-maka** are, but that difference is not reflected in the diagrams.



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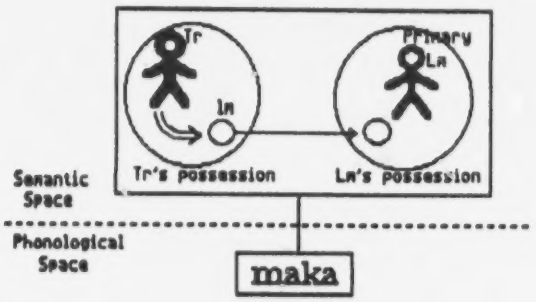


**Figure 1**
**maka**

It is important to note that the choice of Trajector and primary Landmark is not predictable in any direct way from the objective situation described by a verb, but rather is a matter of linguistic convention. The variations of prominence, of construing one entity as figure relative to others, which constitute the Trajector vs. landmark and primary vs. secondary landmark distinctions, are very much a matter of structure imposed on a situation rather than determined by it.[3] Giving can be relatively neutrally described as a situation in which a giver possesses something at one point in time, and then the giver causes that a recipient possess that thing. **maka** conventionally picks the giver as Trajector and the recipient as primary Landmark. The English verb **give** takes the giver as Trajector but the thing given as primary Landmark, and the verb **receive** takes the recipient as Trajector and the thing given as primary Landmark. By convention these verbs construe the same sorts of situations in different ways, giving different degrees of prominence to the different participants. 'Give' and 'receive' are diagrammed in Figure 2, for comparison with **maka** in Figure 1.

[3] Different factors in the objective situation will influence these construals, making one construal tend to predominate for a given situation, but they cannot absolutely determine them.

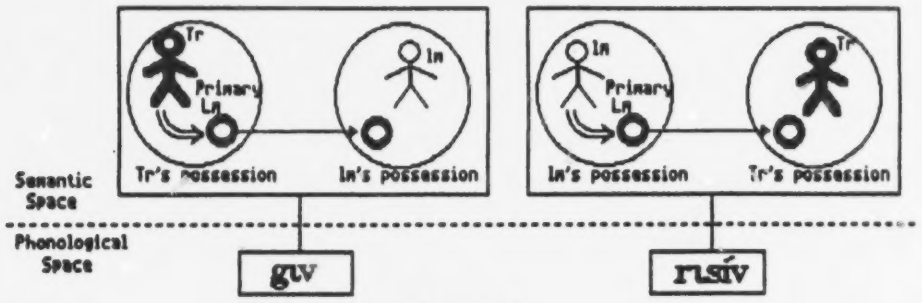


**Figure 2**
**give, receive**

A verbal structure is often accompanied by nominal structures which correspond to its Trajector or landmark(s); these are its *subject* and *object(s)*. In the Nahuatl cases we will be examining these are pronominal prefixes or incorporated noun stems that attach to the verb stem, in the order subject-object(s)-verb.[4] For instance **ni-mitz-maka** (I-you-give) means 'I give (something/it) to you'. A diagram of this structure is given in Figure 3.

[4] Clausal subjects and objects do occur commonly, but normally only when the prefixal object is third person, and often not even then. A Nahuatl verb with its prefixal subject and object constitutes a perfectly well-formed clause by itself.

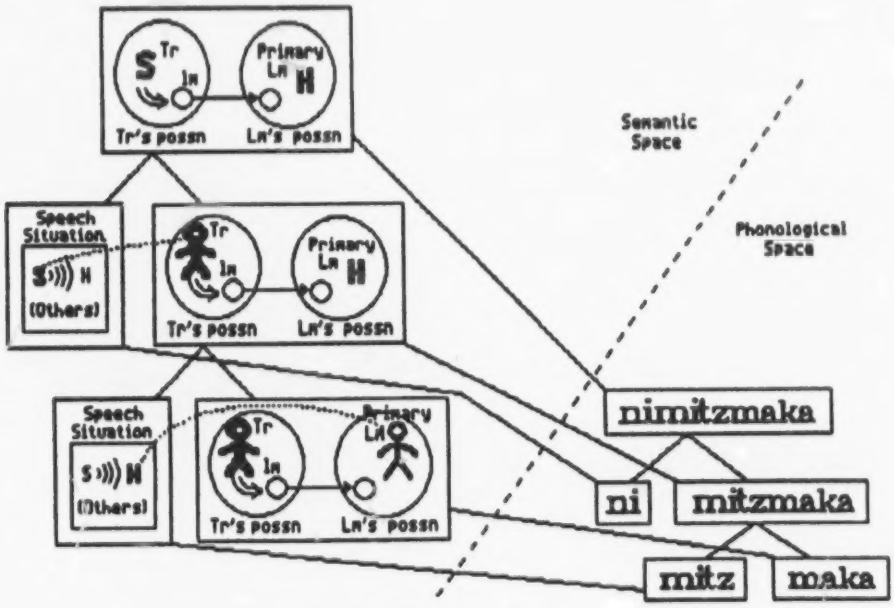


**Figure 3**
**ni-mitz-maka**

## 2.2 Transitive and intransitive Nahuatl verb stems

All Nahuatl verb stems take a subject prefix,[5] but they are sharply divided on the question of whether or not they take an object prefix. Many verb stems virtually never do, and those that ever do virtually always do;[6] the former group are the intransitives and the latter the transitives.

It is useful to distinguish three sub-types of intransitives. (1) In some verbs there is no single salient landmark to code. E.g. in **nehnemi** 'walk' the movement of the Trajector (the animate being who walks) is certainly calculated with respect to the ground he walks over, but the

[5] Some verbs (e.g. meteorological verbs) may be thought to have no subject prefix, but it is hard to prove it; the third person singular subject prefix is **ø-** (zero), and those verbs can be analyzed as always carrying that prefix (which would be analogous to the English subject 'it' with weather verbs, e.g. 'it rained'.)

[6] There are a very few stems which can be used both transitively and intransitively; among them are **ahsi** 'reach' (**n-ahsi** 'I arrive', **ni-k-ahsi** 'I reach it'), **tōka** 'bury, plant' (**ni-tōka** 'I plant corn', **ni-k-tōka** 'I plant/bury it'), **tisi** 'grind' (**ni-tisi** 'I grind tortilla dough', **ni-k-tisi** 'I grind it'). In other dialects **tōka** and **tisi** are consistently transitive, requiring the use of **tla-** 'unspecified' object to mean 'plant corn' or 'grind tortilla dough'.

ground is an extremely diffuse, non-differentiated kind of landmark, being almost coextensive with the entire background against which the action takes place. (2) In other cases there is a single salient landmark, but its nature is sufficiently indicated by the verb stem itself, so that further specification is unnecessary. E.g. the stem **tisi** 'grind corn into tortilla dough' has the corn which becomes dough as a very salient landmark, but it specifies the nature of that landmark sufficiently that the stem is intransitive. (3) Sometimes the landmark is insufficiently distinct from the trajector to merit separate specification. In **posteki** 'break', for example, the landmark with respect to which the trajector changes is itself in its canonical unbroken state. Unsurprisingly, then, this is an intransitive stem.

For transitive stems such as **maka**, occurrence in construction with an object is a central specification of the stem. This is natural since (1) there is a salient landmark, (2) typically distinct from the trajector, but (3) whose identity is not specified as fully as language users are likely to want.

### 2.3 Nahuatl object prefixes

Nahuatl has three kinds of object prefixes. The most common are a series of pronominal prefixes which we will refer to as *personal pronouns*[7], such as **nech-** 'me' and **mitz-** 'you', or **k-/ki-** 'him/her/it'. These designate either a participant in the speech process or a third person entity known to those participants, or a group including one or more participants or third persons. A second type is the reflexive **mo-**, which designates an entity characterized as identical to the trajector. This entity is related to the speech act participants only indirectly, when the trajector is so related via a subject nominal. The third kind of object prefix consists of the unspecified objects **tla-** 'unspecified thing(s)', **tē-** 'unspecified person(s)', and **ne-** 'unspecified reflexive/reciprocal'.[8] The relationship of these to the speech act participants is pointedly not specified. (**ne-** of course is a member of both the reflexive and the unspecified kinds.)

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[7] The name must not be taken to imply that these forms invariably designate human beings; the most commonly used of them are third person pronouns, which very often designate non-human Things.

[8] The unspecified object prefixes (particularly **tla-** and **tē-**) are often used with a transitive verb stem where in English or other languages an intransitive use of a transitive stem would be expected. For instance, in the English **Did you eat yet?**, where the nature of what is eaten is not important to the speaker and hearer, **eat** is simply used without an object. In the equivalent Nahuatl **¿Kox y-o-ti-tla-kua-h?** (whether already-past-you-unspec-eat-pret) the transitive verb stem **kua** must have an object marker, but **tla-** is used, explicitly marking the fact that the speaker has chosen not to specify what was eaten.

In Figure 3 we represented **mitz-**, one of the personal pronoun objects; we represent it again in Figure 4, along with diagrams for **mo-**, **tē-** and **tla-**, representatives of the other two kinds.[9] Note in particular the presence of the Speech Situation concept in the first morpheme and its absence from the semantic structures of these last three morphemes. Also note that **tē-** is represented as simply specifying humanness, and **tla-** 'Thing-ness', of the object.

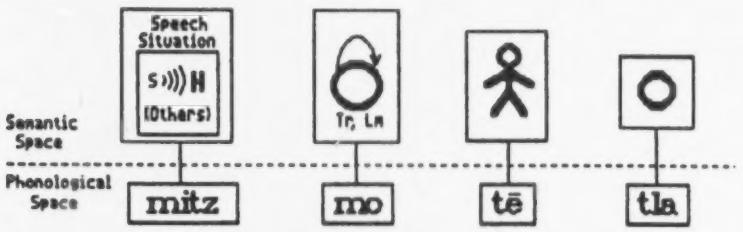


**Figure 4**
**mitz-, mo-, tē-, tla-**

In CG most morphemes have multiple meanings, and these object markers are no exception. In particular, the meaning of **mo-** as represented subsumes two sub-cases which will be important to us: one a true reflexive in which the trajector acts on itself, or more specifically one subpart of the trajector acts on another, and the other a reciprocal, in which different subparts of the trajector are both acting on others and being acted on by those others. These different structures are represented in Figure 5.a; all three structures are established as independent, though related, units in the grammar of Nahuatl.

[9] All these representations are incomplete in that they do not specifically represent the fact that these are *object* pronouns, nor that they are prefixes. These facets of their meanings are not in focus in this paper, so they are omitted to make the contrasting specifications clearer. The objecthood of the prefixes involves identification of the designated Thing with the landmark of a schematically characterized process, and prefixality the specification of a schematically characterized phonological string, symbolizing that process, which follows the particular string (**mitz, mo, tē**, etc.).

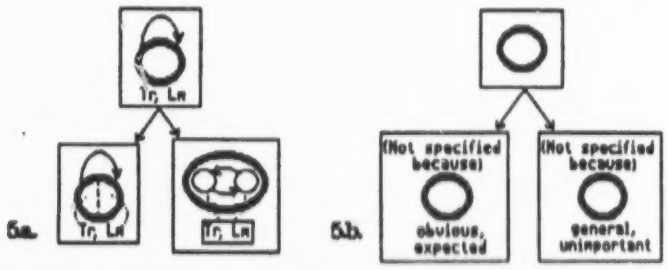


**Figure 5**
**Three senses of mo-; three senses of tla-**

The unspecified objects also have sub-meanings, which relate to why speakers would choose not to specify a landmark. Two which concern us are a general object case, in which the landmark is not specified because it is diffuse or deemed unimportant for some other reason, and a canonical object case, in which the object is not specified because it is (culturally) obvious. These will be represented in a rather ad hoc fashion as in Figure 5.b.[10]

### 2.4 Incorporated noun objects

Sometimes a transitive verb stem will take a non-prefixal object, a noun stem which is incorporated onto the verb stem. An example is **tlāl** '(arable) land',[11] in **tlāl-maka** 'give land to', diagrammed in Figure 6.[12]

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[10] The arrows in Figures 5, 8, 12, and 26 represent the relationship of *schematicity*, with the schema above and its elaborations below. A schema's specifications are compatible with those of its elaborations, but it contains fewer of them; it thus gives in rough detail the picture that the elaborations give in finer detail. The schema thus represents a generalization which can be extracted from its elaborations; it also defines a class, with its elaborations as members.

[11] Nouns in Nahuatl usually carry a suffix called an *absolutive*, unless they are possessed or pluralized. The absolutive is usually **-tl** (after vowels), **-li** (after l), or **-tli** (after other consonants). For instance, the normal way to say 'land' is **tlāl-li**. However, when nouns are incorporated, just the bare stem, without the absolutive, is used.

[12] The recipient (who is the primary Landmark of **tlāl-maka**) is in the typical case an heir, and usually (though not invariably) the land changes hands after the death of the Trajector.

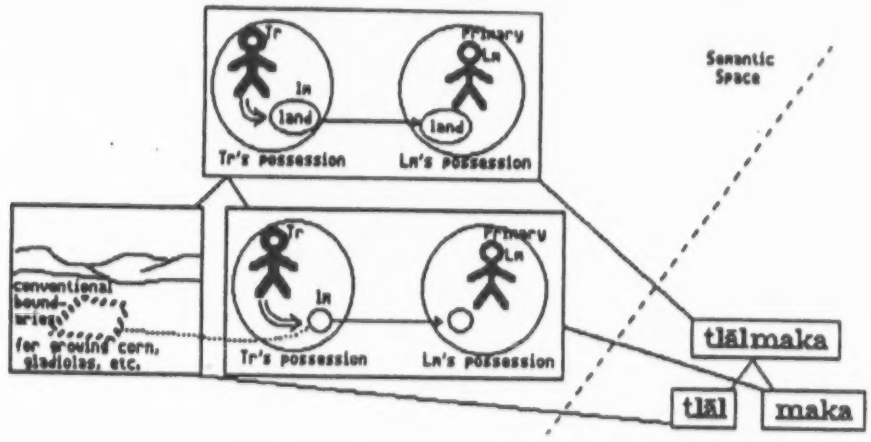


**Figure 6**
**tlāl-maka**

Note that **tlāl** is here a secondary object; i.e. it corresponds to a secondary landmark rather than the primary one. Not surprisingly, then, the composite stem **tlāl-maka** is transitive, like **maka**, expecting to have an object corresponding to the primary Landmark, i.e. the recipient. This is illustrated by the construction **ni-mitz-tlāl-maka**, diagrammed in Figure 7.

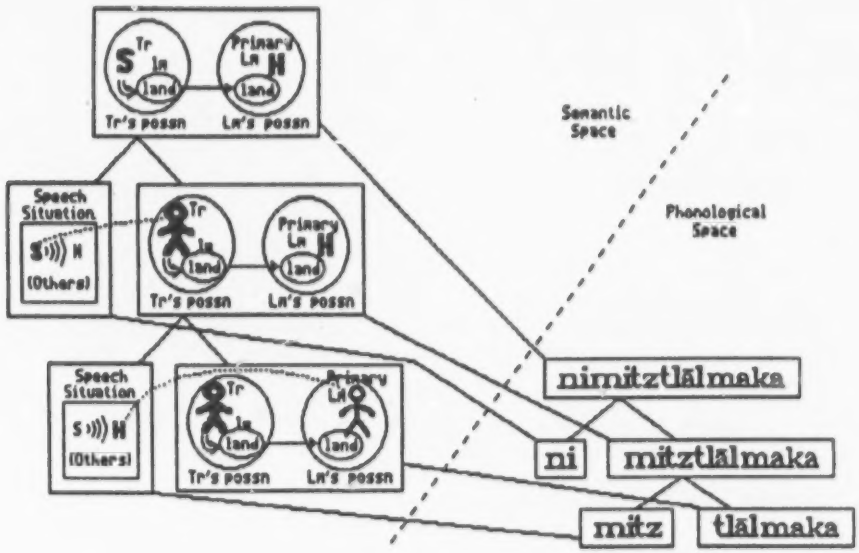


**Figure 7**
**ni-mitz-tlāl-maka**

## 2 DOUBLE-OBJECT CONSTRUCTIONS

Figure 7 is an example of a double-object construction; both **tlāl** and **mitz-** are objects of **maka.** This is not an uncommon phenomenon, but it is not a totally productive one either; you cannot take any transitive stem and put an extra object on it. Rather, certain stems have certain specific double-object constructions associated with them. **maka** is unusual in having so many of them; most transitive stems have fewer or none.

Several generalizations are relevant: (1) Where there are two objects, the second is an incorporated noun, an unspecified object or a reflexive, never a personal pronoun prefix. (2) One of the two objects must be the primary object of the original verb stem. The other will be a secondary object of that stem.[13] (3) The construction of the verb stem with the second object (i.e. the object that immediately precedes it) gives indications of being derivational, rather than inflectional.[14] We

[13] An exception to this statement might be cases where **tla-** is used adverbially, but in those cases it isn't clear that there is a two-object construction.

[14] The derivational-inflectional distinction is a matter of degree (Tuggy 1985); what I am claiming is that the second.object-stem consructions

already noted that they are not fully productive, nor are they fully predictable in their semantic effects, and they tend to be perceived and treated as unanalyzed units rather than analyzed.

An important distinction in CG is made between *types* and *(grounded) instances* of types. Common nouns in English (and many other languages) generally designate *types of Things* (e.g. **mechanic**, or **airplane mechanic**). Full noun phrases (NP's), such as **the mechanic**, or **those airplane mechanics**, however, constitute grounded instances of types. *Grounding* an entity is relating it to the speech act situation: in NP's this is typically accomplished by such elements as articles and deictics. Note that personal pronouns designate not types but grounded instances of types, grounded either by identification with S or H, or by inclusion in their shared sphere of knowledge. It is for that reason that these pronouns can (and typically do) function alone as full NP's.

This distinction is important for the data we are examining. The personal pronouns, as just noted, designate grounded instances. The "unspecified object" prefixes, on the other hand, designate schematic types (tla- 'non-human Thing (type)', tē- 'human Thing (type)'), not grounded instances of those types. The reflexive mo- is in between; it is an instance, but it is not grounded; its relationship to the speech-act participants is not specified. Recall that in Figure 4 none of these included a relationship to the Speech Situation among their specifications. Similarly noun stems in Nahuatl designate types, not grounded instances of those types.[18] This gives us the basis we need for distinguishing between the personal pronoun objects and the other types: only they are grounded instances of the Things they designate.

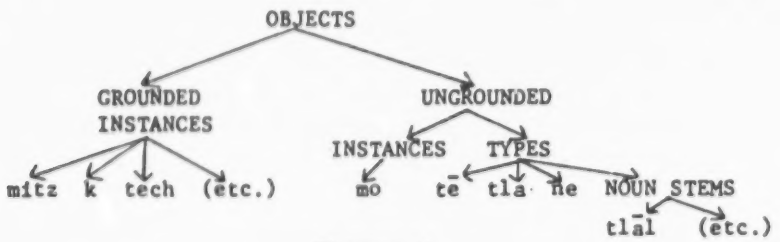


**Figure 8**
**Kinds of objects**

are toward the derivational end of the spectrum in contrast to (most) first.object-stem constructions.

[18] I previously mentioned (footnote 11) the absolutive suffix; its meaning is very hard to pin down, but a case can be made for its having to do precisely with instantiation and grounding. A noun with its absolutive can function perfectly well as a NP, and the affixes which preclude the absolutive's use are themselves grounding or instantiating predications.

We can, then, restate our generalization (1) above to say that whenever there are two objects, the second is not a grounded instance, but rather either an ungrounded type, or an ungrounded instance.

The type-grounded instance distinction is relevant to verbal structures as well. A VP is a grounded instance of a type of process, just as an NP is a grounded instance of a type of Thing. In Nahuatl, verb words correspond in this to English VP's: they are grounded instances of types. Verb stems, like noun stems, are in themselves type specifications. Their instantiation and grounding is more complex; in particular they are grounded by relating the process itself to the speech situation (via tense and mood predications), but also via grounding their participants. It is this grounding in terms of participants that particularly interests us here.

Our observation that Nahuatl verbs are either transitive or intransitive can be restated; Nahuatl verbs expect to be grounded either through their trajector alone (intransitives), or else through both their trajector and their primary Landmark (transitives). A structure like **ni-mitz-maka** (Figure 3) is thus an example of the grounding of the stem **maka**, a transitive stem, through its trajector (**ni-**) and its primary Landmark (**mitz-**).

From this perspective the distinction between the personal pronominal prefixes and the other kinds of objects is very important indeed. The personal prefixes accomplish the grounding via the primary Landmark which the stem expects; all the others do not. Rather they give an ungrounded type or instance specification. An important point is that once they have done so, the verb will not be grounded via its landmark: these objects specifically avoid grounding the stem, and it will not thereafter be grounded.

What they do, in fact, is produce a new, more precise type specification. Just as the (ungrounded) modifier **airplane** in the noun compound **airplane mechanic** does not ground or instantiate the head noun type, but rather produces a new, more specific type, so the ungrounded noun **tlāl**, when joined to **maka** as object (Figure 6), does not ground that stem, but rather makes it into a more specific type. **tlāl-maka** does not designate any process of giving, but rather giving of land in particular. But giving land is a type of activity, not an instance, much less a grounded instance, of that type.

Here we see a tie-in with our generalization (3) above. If a stem is necessarily a type specification, the product of the morphological operations which ground it is not another stem, but rather a verbal (VP);[16] this is what happens when a personal pronoun prefix is put on a Nahuatl verb stem. When one of the other kinds of objects is used, however, a new stem (a new, somewhat more specific type) is produced.

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[16] Or something intermediate, a sort of half-fledged verbal.

This, I suggest, helps explain why all the objects except personal pronouns behave like derivational affixes: they behave like them precisely because they are; they derive a new stem from the basic stem.

## 4 NON-PERSONAL OBJECTS PRODUCING AN INTRANSITIVE STEM

In Figure 3 we saw **maka** used with a personal pronoun object, and in Figure 6 with an incorporated noun object. Figures 9 and 10 represent two slightly different reflexive construals with **mo-** and **maka**, one of them a true reflexive, and the other (which requires a plural Trajector) a reciprocal.[17] **ni-mo-maka** means 'I give myself (something)'; **se-mo-maka** means 'we give each other (something)'. Figure 11 represents a usage of maka with the unspecified human object **tē-**; **ni-tē-maka** means 'I give people (things), I am generous'.

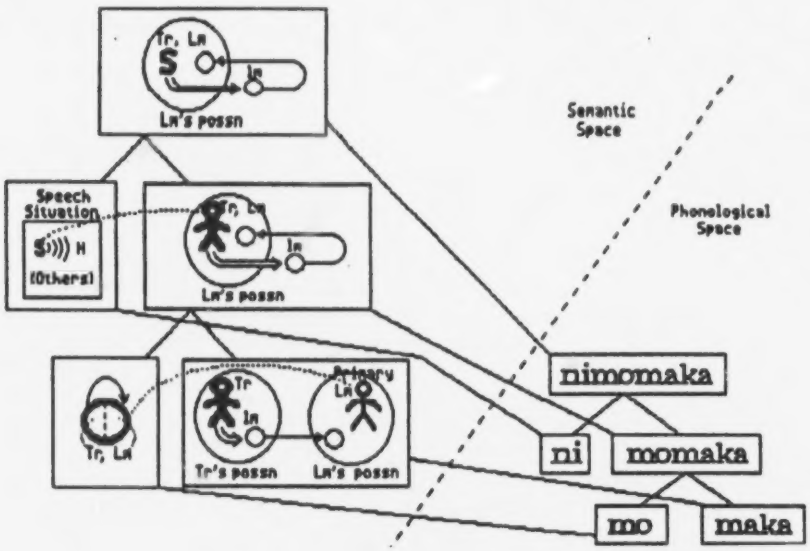


**Figure 9**
**ni-mo-maka (reflexive)**

[17] The form **se-** 'we (subject)' is an innovation in a few towns in the Orizaba area; it derives from an impersonal subject construction using the numeral **se** 'one' (Burnham 1981). All other plural subject prefixes (e.g. the more usual **ti-** 'we') would require a suffix marking plural subject (**-h** for present tense). For simplicity's sake we are using the form that does not need such a suffix. Also for ease of representation we assume a version of **se-** with only two members of the group.

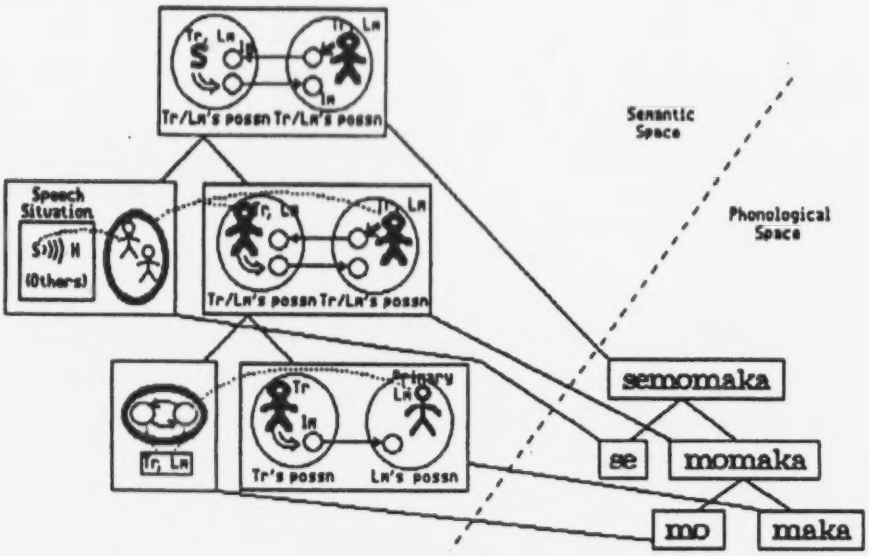


**Figure 10**
**se-mo-maka (reciprocal)**

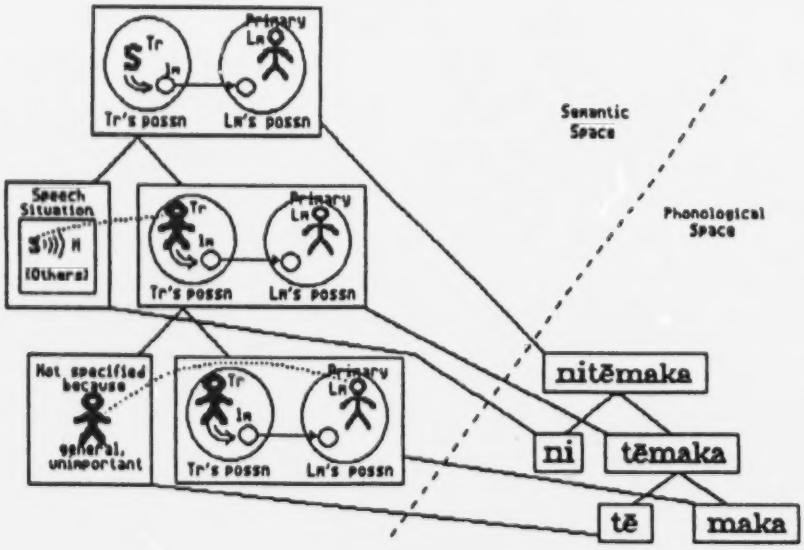


**Figure 11**
**ni-tē-maka**

In all three of these cases an intransitive verb stem is produced, as shown by the fact that the stem-cum-object combines immediately with a subject prefix (ni- or se-). The same might be said of **mitz-maka** in Figure 3, but if we bear in mind what was said above regarding grounding and the inflectional-derivational distinction, **mitz-maka** will not be seen as a new stem, but rather as a step in the normal process of grounding a stem, whereas the other constructions all form new stems. This is not to deny that the forms are all parallel, just to maintain that there is an important difference between Figure 3 and the other cases, as diagrammed in Figure 12.

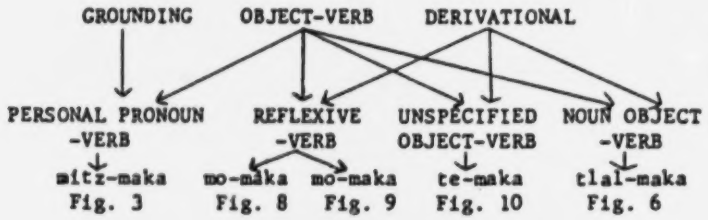


**Figure 12**
**Kinds of object-verb constructions**

The intransitive stems produced by the non-personal object constructions include two of the three kinds mentioned in Section 1.2: **tē-maka** is a case of a stem being intransitive because its object is general or not significant, and the two versions of **mo-maka** are intransitive because the primary Landmark is not separate enough from the Trajector.[18]

## 5 NON-PERSONAL OBJECTS PRODUCING A TRANSITIVE STEM

We now turn to cases where **maka** is used with a non-personal object to derive a transitive verb stem. These are the stems that give rise to the double-object constructions described in Section 2. There are two kinds of such stems: those in which the object is a secondary object, and those in which it corresponds to the primary Landmark, but a new primary Landmark is chosen for the complex stem, and it remains transitive.

### 5.1 Secondary objects

We have already seen one case in which a non-personal secondary object is used with **maka**, namely **tlāl-maka** in Figure 6. As Figure 7 illustrates, the complex stem continues to be transitive with respect to

[18] **mitz-maka** can be considered an example of the third kind, where the stem does not take an object because the object is already specified as much as the interlocutors are likely to want (cf. footnote 20).

the recipient. There are a few other such cases with other incorporated noun objects, e.g. **teki-maka** (work-give) '(give) hassle (to)'. More interesting for us is the stem **tla-maka** 'give food to, feed' (Figure 13), with the unspecified object prefix **tla-**. This is one of the cases where an object is left unspecified because it is a canonical object, one which is obvious to members of the culture. In a construction directly parallel to Figure 7, one can say **ni-mitz-tla-maka** 'I feed you' (Figure 14); it is not possible to say ***ni-tla-maka** '*I feed'.

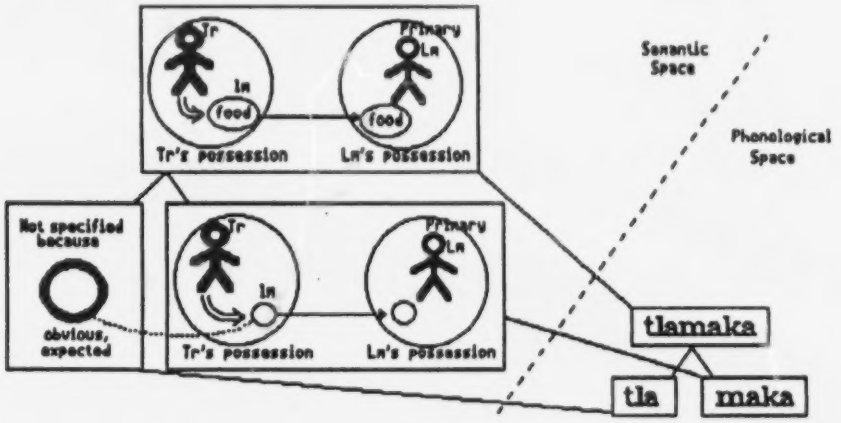


**Figure 13**
**tla-maka**

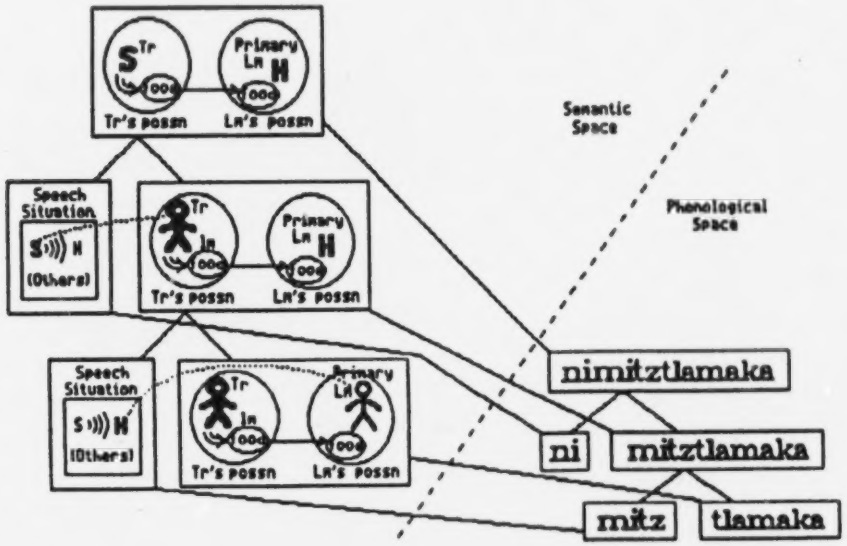


**Figure 14**
**ni-mitz-tla-maka**

## 5.2 Transitivity shifts

There are four cases in which a primary object, i.e. one which corresponds to the primary Landmark of **maka**, produces a stem which remains transitive, but which now expects an object corresponding to the thing given. I will assume that, although that given thing is a secondary object of **maka**, it is the primary Landmark of the composite stem.

One case is another **tē-maka** formation, like that of Figure 11 except that the thing given becomes the primary Landmark of the composite stem. This construction is diagrammed in Figure 15. Note that the composite structure is identical to that of the English verb 'give', diagrammed in Figure 2.

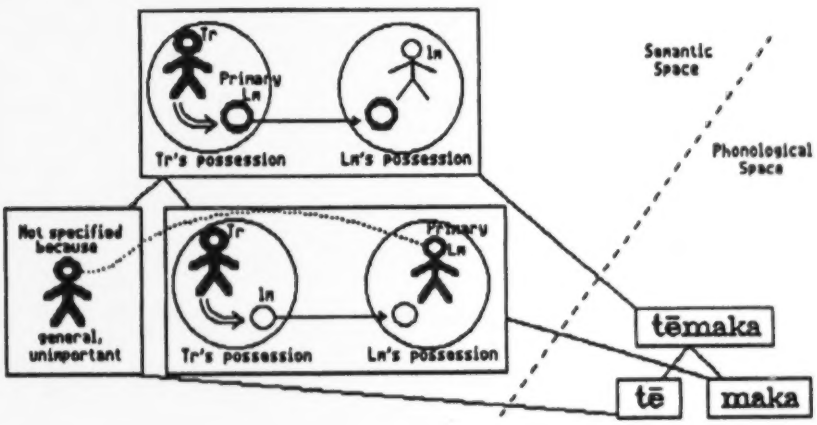


**Figure 15**
**tē-maka**

**Figure 16 diagrams the construction ni-mitz-tē-maka, which can be instructively compared with Figure 14; note that in ni-mitz-tla-maka the Hearer is the recipient, whereas in ni-mitz-tē-maka he is the thing given; the verb with such a human object can be translated 'betray'.**

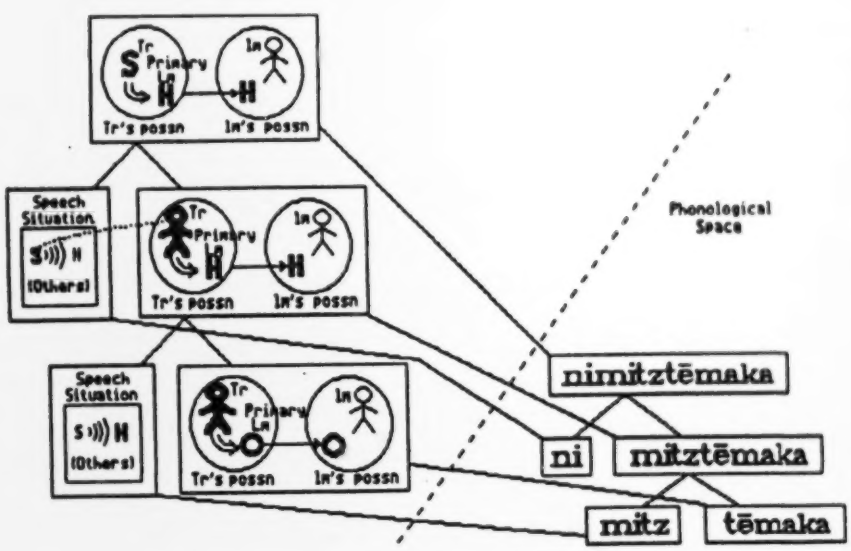


**Figure 16**
**ni-mitz-tē-maka**

There are two similar constructions with **mo-maka**, parallel to Figures 9 and 10, but again with the thing given taking over as primary Landmark in the composite construction. Figure 17 diagrams the construction meaning 'give oneself the Landmark', and Figure 18 the construction meaning 'give each other the Landmark'. The Landmark in Figure 18 must be a plural or a mass object, and it is usually understood that each gives this object to the other non-simultaneously. Both stems of course are used to produce grounded verbs such as **ni-k-mo-maka** (I-it-refl-give) 'I give it to myself' or **se-ki-mo-maka** (we-it-refl-give) 'we give it to each other'.

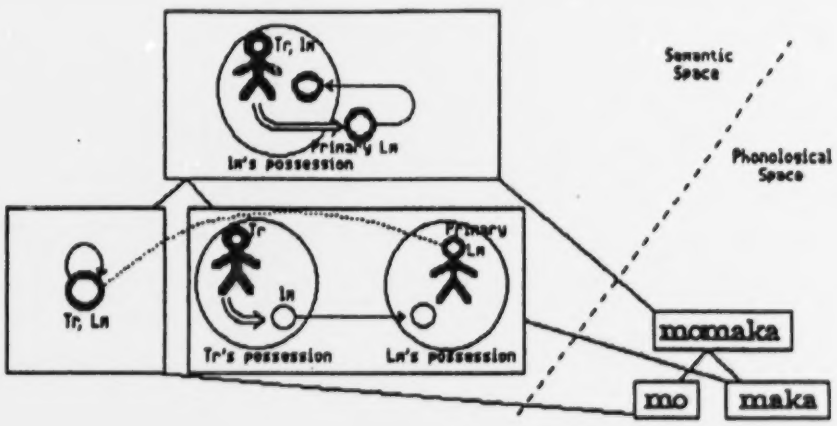


**Figure 17**
**mo-maka (give the Landmark to oneself)**

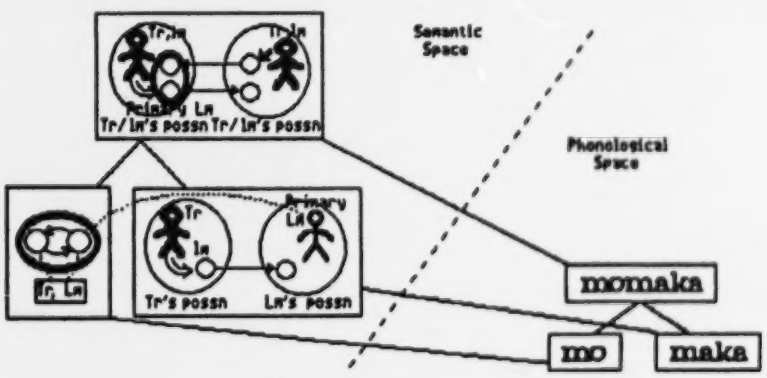


**Figure 18**
**mo-maka (give the Landmark to each other)**

A final case involves the unspecified reflexive prefix **ne-**, in a reciprocal version.[19] The basic idea of giving thus becomes one of exchange in **ne-maka**, with the added specification that one person gives money in exchange for the other giving some item of value such as food or clothing. The person receiving the money and giving the valued item is Trajector of **ne-maka**, the valued item is the primary Landmark, and the money and the person who gives it and receives the valued item are secondary landmarks. I.e., the stem means **sell**, not **buy**; it is diagrammed in Figure 19. Once again, the construction of verbs grounded by both trajector and Landmark is expected, such as **ni-k-ne-maka** 'I sell it'; if the construction **ni-mitz-ne-maka** were constructed it would parallel Figure 16 rather than Figure 14 in that the Hearer would be the item that changes hands rather than the recipient of that item.[20]

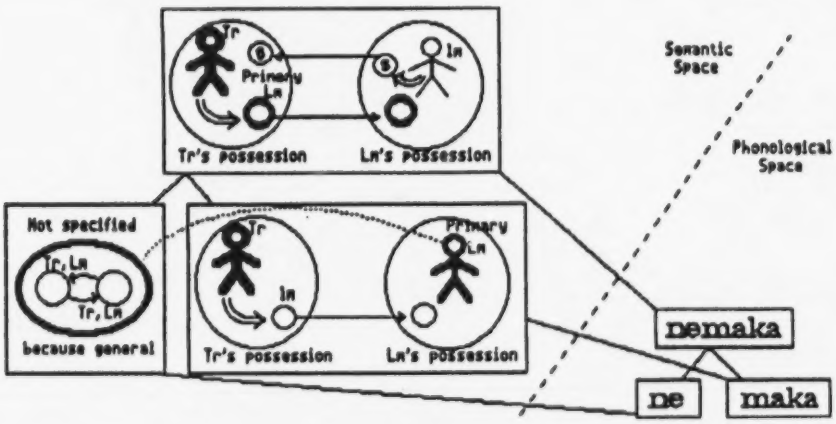


**Figure 19**
**ne-maka**

## 6 THE MANY MEANINGS OF mo-maa; kuā-maa

In a specialized case of **maka** what is given is specifically a blow; the verb can be translated 'hit' instead of 'give'.[21] In many dialects of

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[19] This is a very old, frozen construction, but its parts are still analyzable to some degree by native speakers.

[20] **ne-maka** seems reasonably productive with incorporated primary objects, producing intransitive stems such as **toma-nemaka** 'sell tomatoes' or **tlio-nemaka** 'sell shelled corn'. This is a case of a stem becoming intransitive because its primary Landmark is sufficiently well specified to not need an object to further explain its nature (cf. footnote 18).

[21] The parallels with the English colloquial locution 'Give it to him' or similar Spanish expressions such as **Dale duro** (give-him. dative hard)

Nahuatl the k has softened to a g in this specific subcase, giving the form **maga**; in the Orizaba area it has disappeared entirely, giving **maa**.[22] There are a number of constructions on this stem which parallel those we have been examining, including five different construals of **mo-maa** (refl-hit).

**maa** can of course be used like a normal transitive verb, with a personal pronoun object. Thus **ni-mitz-maa** means 'I hit you'; it would parallel Figure 3, but with the specifications of **maa** imposed over those of **maka** in the appropriate places. Constructions with non-personal objects include **tē-maa** 'hit people' (parallel to Figure 11) and **mo-maa** 'hit oneself' (parallel to Figure 9), which we will not represent diagrammatically.[23]

The most typical construal of **mo-maa**, however, which we represent in Figure 20, is a reciprocal hitting parallel to the reciprocal giving of **mo-maka** Figure 10, and like that form requires a plural subject. Thus **se-mo-maa** (we-refl-hit) means 'we fight'.

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'hit him hard' are not accidental, and probably are not borrowings, but natural independent developments.

[22] **aa** is still a bisyllabic sequence, as the (penultimate) stress indicates ([nɪmɪtˢmáa] **ni-mitz-maa** 'I hit you'). The **aa** is also significantly longer than an **ā**, whose length is quite difficult to detect (Burnham and Tuggy 1979).

[23] There is also a stem **tla-maa** 'hit, be a hitter/fighter', which, like the two cases just mentioned, is intransitive. However, it is not clear that the **tla-** is an object; **tla-** has adverbial usages, among them the meaning 'customarily do' (related to the canonical object sense), and that is probably the meaning here.

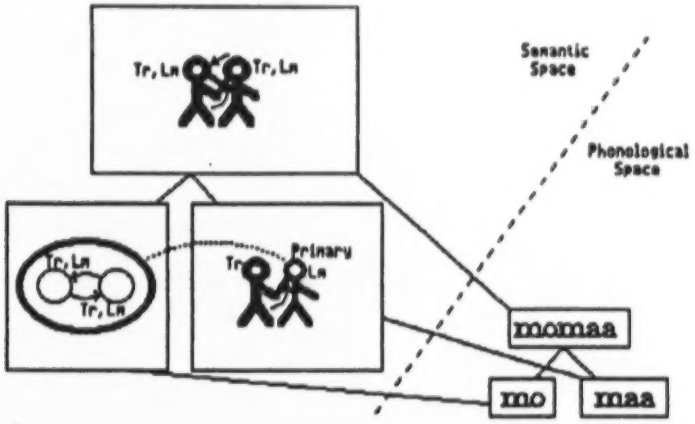


**Figure 20**
**mo-maa (fight, plural Trajector)**

**mo-maa, while retaining the reciprocal meaning 'fight', can also be used with a singular subject as an intransitive stem.[24] In this construction I would claim that the protagonist is both trajector (he hits) and primary Landmark (he gets hit), which makes the intransitive usage natural; his antagonist, though clearly a central part of the process, is relegated to a secondary landmark position. This structure is diagrammed in Figure 21.**

[24] **The person with whom one is fighting can be expressed in the clause as the object of the postposition -van 'with'; thus ni-mo-maa mo-van (I-refl-hit you-with) 'I fight with you'. (This is an "accompanying" 'with', not an instrumental, which would be mo-ka.)**

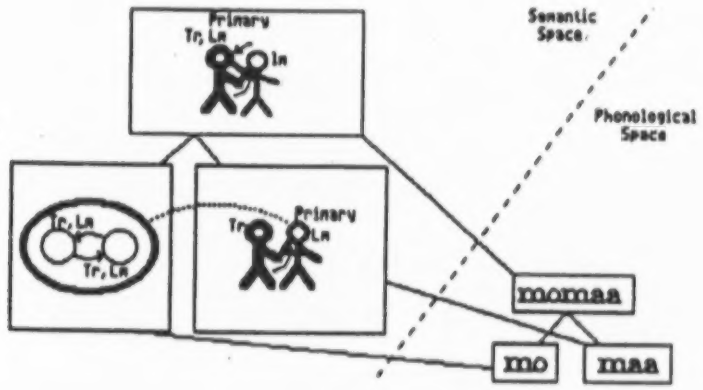


**Figure 21**
**mo-maa (fight, intransitive)**

In yet another construal of **mo-maa** the notion of fighting remains, but the protagonist and antagonist are distinguished as trajector and primary Landmark; this is a double object construction, and **ni-mitz-mo-maa** means 'I fight you'. The stem is diagrammed in Figure 22.

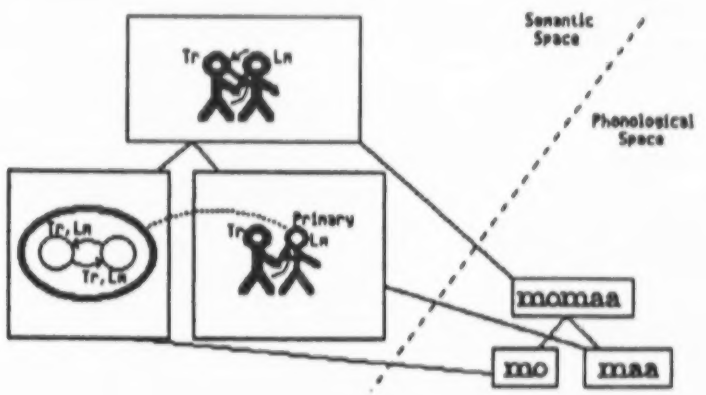


**Figure 22**
**mo-maa (transitive)**

In yet another construal of **mo-maa**, the trajector is conceived of as giving himself a blow by bumping into some object, and that object is given the primary Landmark spot. This structure is diagrammed in Figure 23.

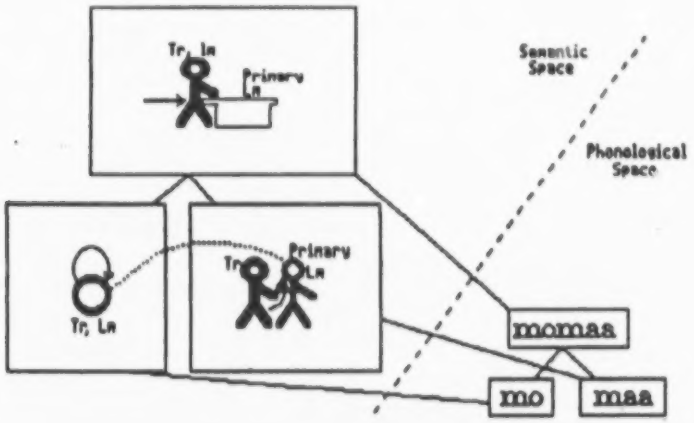


**Figure 23**
**mo-maa (hit oneself against Landmark)**

Finally, **maa** lends itself to a double-object construction in which a body-part noun is incorporated, which can be analyzed as either a primary or a secondary object.[25] An example (out of a number of similar cases) is **kuā-maa** 'hit the Landmark on the head'. One way to analyze this form is to view it as parallel to Figure 6, taking the head to be a a secondary landmark, a subpart of the primary Landmark of **maa** which is the person who gets hit. This analysis is reflected in the diagram in Figure 24.

[25] This is the most common kind of noun incorporation in Nahuatl, with Trajector's body-part or active-zone incorporations being a close second.

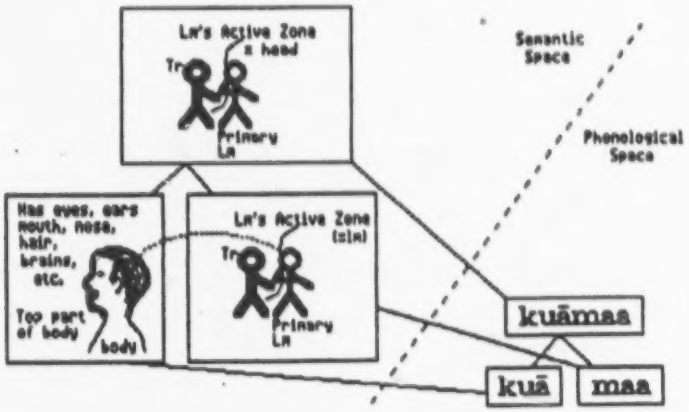


**Figure 24**
**kuā-maa (secondary object analysis)**

Another analysis would take kuā- as the primary object of maa (after all, the head is what gets hit); with a change of transitivity between maa and the composite stem kuā-maa, in which the owner of the head takes over as primary Landmark. This analysis, which parallels that of Figures 15 and 17 (among others) is represented in Figure 25.

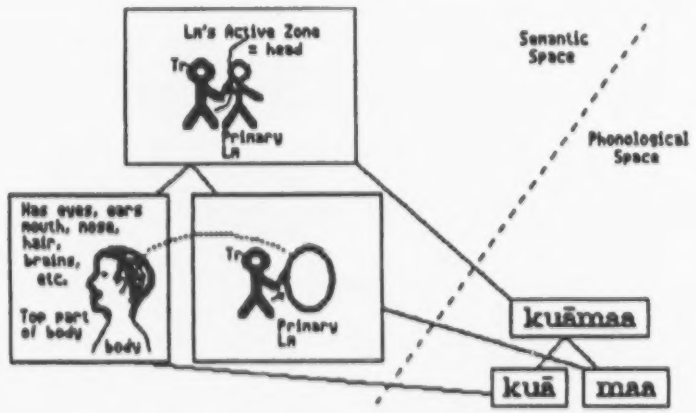


**Figure 25**
**kuā-maa (primary object analysis)**

Under CG there is no problem with maintaining that both analyses are correct, and thus that kuā-maa (and the other forms of the same

sort) is a kind of bridge between the two kinds of double-object constructions.[26]

## 7 SUMMARY AND CONCLUSION

Figure 26 presents a schematic network showing some of the classifications of the structures we have been seeing. Under CG, relations of the sort diagrammed here constitute the structural description of a form; thus, for example, the stem **kuā-maa** includes in its structural description membership in both the primary and secondary object constructions, and thus sisterhood with forms like **tlāl-maka** on the one hand and **tē-maka** on the other.

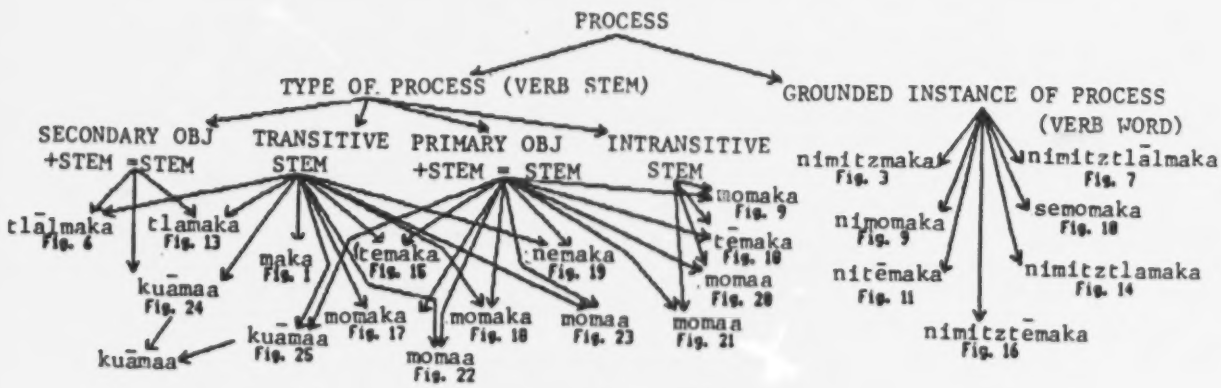


**Figure 26**
**Schematic network of constructions on maka/maa**

This has been essentially a presentation of how Cognitive grammar handles a complex set of data, rather than an argument that this is necessarily a better way than what would be done under other models. It is worth noticing how many of the concepts already utilized in Cognitive grammar (e.g. the type-instantiation distinction, or schematicity) are useful in the analysis, and the fact that those concepts are independently grounded in cognition makes their contribution go beyond description to provide some degree of explanation. In many other models it would have been much harder, if it were even possible, to capture the same insights.

[26] For exposition of this kind of construction in the context of noun incorporations in general, see Tuggy (1981, 1986, 1987).

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